

PERFORMANCE OF BITUMINOUS MIX DESIGN BY USING HYDRATED LIME AND SHREDDED TYRE AS ADDITIVE

BY

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DECLARATION BY THE CANDIDATE

I, Rosger @ Mohd Sharyl Nazman bin Jaudin confirm that the work is my own and that appropriate credit has been given where reference has been made to the work of others.

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ACKNOWLEDGEMENT

In the name of ALLAH, Lord of the Universe, the most gracious and is most merciful, with His permission, the proposal of the project has been successfully completed. Praised to Prophet Muhammad, His companion and those who are on the path as what he preached upon, may ALLAH almighty keep us blessing and tenders. First and foremost, I would like to take this precious opportunity to express my sincere gratitude to my supervisor Mr Anas Bin Ibrahim for his patience, invaluable guidance, support, encouragements and sincerity for assisting me during the preparation of this final project report. My thanks are also forwarded to Mr Azrul as a highway laboratory technician for his kindness and co-operation for helping me to get the best experience during soliciting information for this final project report. Finally, I would like to express my special gratitude to my beloved family for their encouragement and their moral support and also special thanks to whom have directly or indirectly given me support and help that did not mention their names here for their help and their understanding during the progress of studying in Universiti Teknologi MARA, Pulau Pinang.

ABSTRACT

Increasing traffic volumes, heavier loads and poor performance of bituminous mixtures under adverse environmental conditions have led to the increase use and development of modified bituminous binders and asphalt mixtures. The types of modifiers that have been used include sulphur, rubbers hydrated limes, thermoplastic polymers and other additive fillers and binders is one of the best ways to overcome the problem. The problem due to pavement distress in the flexible pavement is one of the solutions which is to prevent the paving problem rather than curing it which will cost a lot of money. By preventing and also building a high strength, durable and high resistance of pavement design through its mixture design. We will be able to save money and also the stability of the roadways. Thus, we will be able to exist safety condition to the pavement with lesser maintenance and problems.

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